

NEW HOLLAND

REPAIR MANUAL

TN65F,
TN70F,
TN75F,
TN80F,
TN90F,
TN95F
Tractor

NEW HOLLAND
AGRICULTURE

SERVICE

87026001

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The following pages are the collation of the contents pages from each section and chapter of the TNF Series Repair manual. Complete Repair part # 87026001.

The sections used through out all New Holland product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the TNF Series Tractors.

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87026009 11/02

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BOOK 1 - 87026002

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BOOK 1 - 87026002

Chapter 1 - Engine

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SECTION 18 - CLUTCH

BOOK 1 - 87026002

Chapter 1 - Clutch

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SECTION 21 - TRANSMISSIONS

BOOK 2 - 87026003

Chapter 1 - Mechanical Transmission

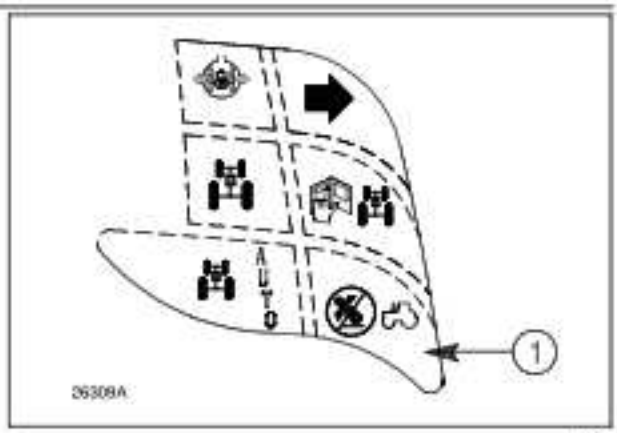
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ELECTRONICALLY CONTROLLED FRONT LIFT FAULT CODES INDICATION

In the event of an electrical or electronic fault, any eventual anomalous conditions are indicated by the illumination of an indicator lamp (1).



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FAULTS CODE DECODING

The indicator (1) identifies the error code in six phases:

1. 5 flashes in rapid succession to indicate imminent transmission of the error code;
2. 2 second pause;
3. n... flashes to indicate the first figure of the error code;
4. pause of 1 second;
5. n... flashes to indicate the second figure of the error code;
6. 3 second pause.

The control unit only indicates one code at a time, giving priority to the most serious faults.

If a higher priority fault occurs whilst a lower priority fault is being displayed, the display sequence of higher priorities will wait until the sequence in progress ends, before becoming active.

To check for the presence of other codes the fault must be eliminated, allowing the control unit to proceed to the following fault.

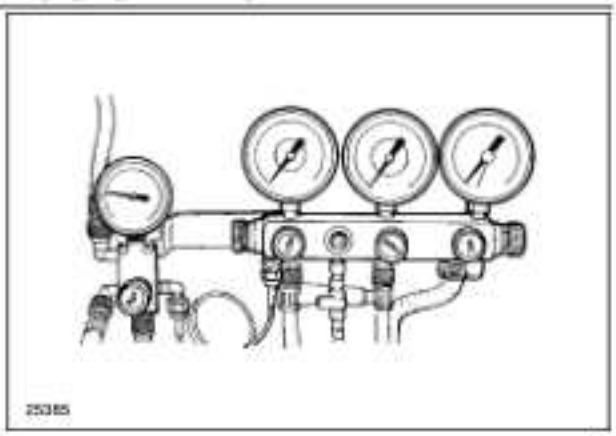
IMPORTANT: *If a fault disables the lift control function, the corresponding code will take precedence over other codes that were previously indicated; these codes will be saved by the system.*

- Example of the interpretation of error code number 45 -

1st phase	2nd phase	3rd phase	4th phase	5th phase	6th phase
●●●●●	pause	●●●●	pause	●●●●●	pause
code transmission warning	2s	first digit 4	1s	second digit 5	3s
		error code composition 45			

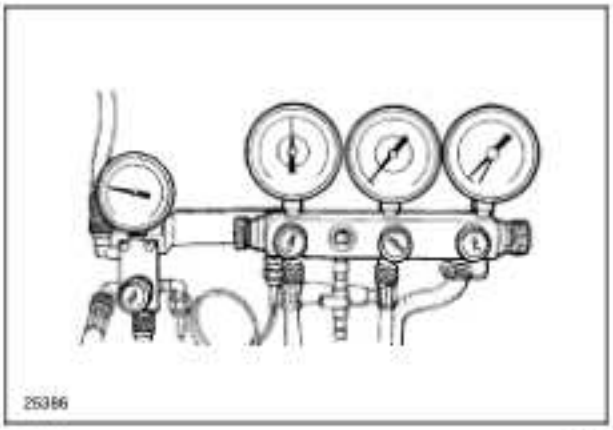
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- Pressure gauge readings with cocks (4 - 10 - 22, fig. 13) open, cylinder (31) with 1100 grams (2.42 lbs) of refrigerant, red and blue service pipes connected to the tractor system, cocks (16) open, compressor off and cock (9) closed (check on vacuum meter (8) that no pressure drops occur over a period of five minutes).



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- Pressure gauge readings (start of charging - end of charging). All previously opened cocks are to be closed, apart from cocks (3 and 4, fig. 13), compressor off. The level of refrigerant in the charging cylinder can be seen to drop; proceed until only 300 grams (10.5 oz) of refrigerant remain in the charging cylinder (800 grams [1.76 lbs] transferred). The reading of vacuum meter (8) remains the same from the beginning to the end of the charging operation.



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Checking the temperature of the air coming out of the vents inside the cab.

If the temperature of the air measured at the vents is within the value range indicated in the table for the external ambient air temperatures specified, the system is functioning efficiently.

If the temperature of the air at the vents exceeds the maximum value indicated in the table, refer to the fault diagnosis guide in the following pages.

AIR CONDITIONING SYSTEM
OPERATING TEMPERATURE VARIATIONS

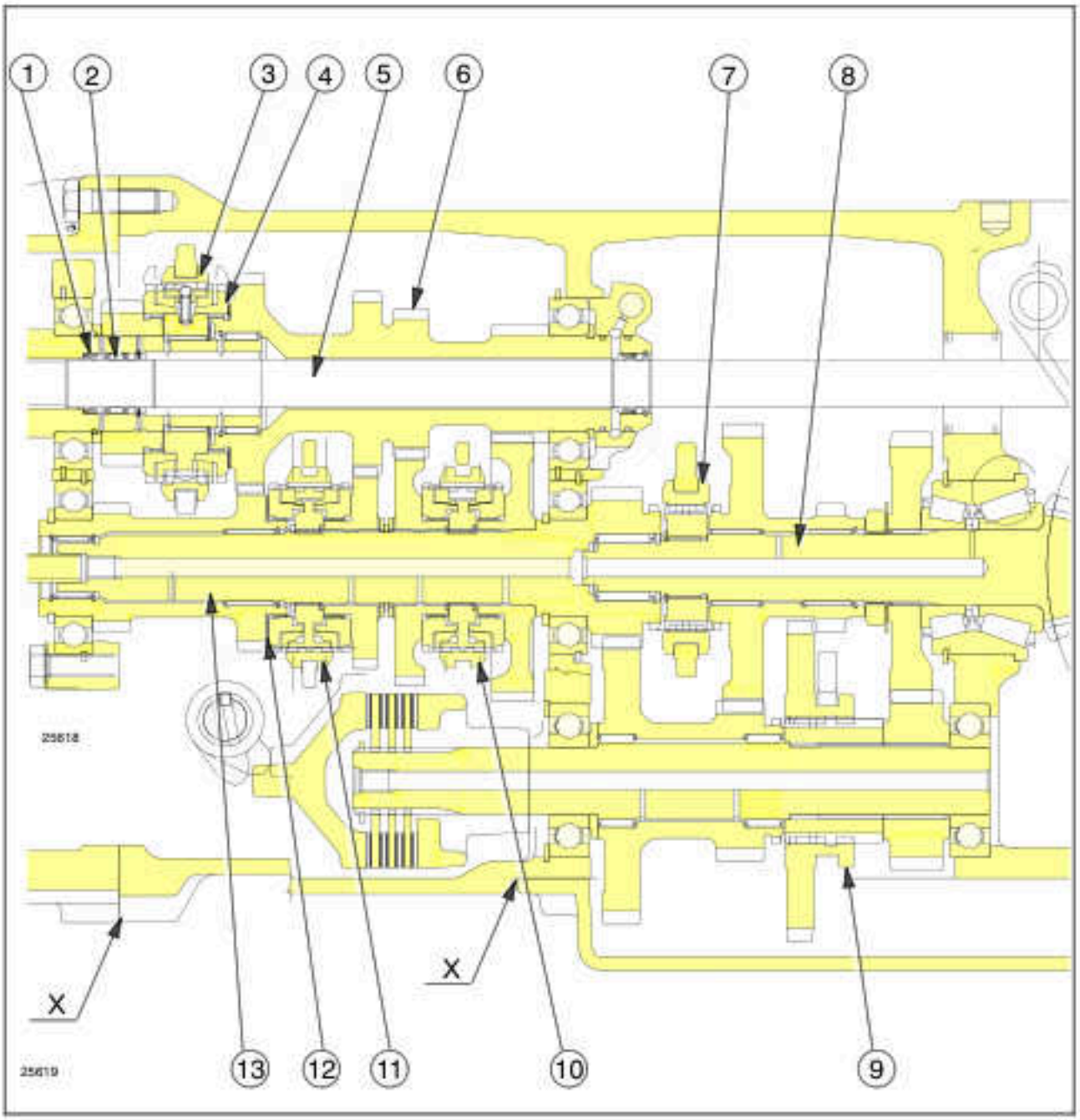
External ambient temperature	20°C (68°F)	27°C (80°F)	28°C (82°F)	35°C (95°F)	36°C (96.8°F)	43°C (109°F)
Temperature of air at vent outlets (inside cab)	4 to 8°C (39 to 46°F)		6 to 12°C (42 to 54°F)		12 to 20°C (54 to 68°F)	

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REAR MAIN WIRING (transmission circuit)

38 - Electronic lift up-down switch on right mudguard
39 - Electronic lift pull sensor
40 - Rear PTO rev sensor
41 - Rear lift up solenoid valve
42 - Rear left auxiliary work light
44 - Right drawbar adjustment solenoid valve
46 - Rear lift down solenoid valve
47 - 25A socket
48 - Seven-pole socket
49 - Electronic lift up-down switch on left mudguard
51 - Seven-pole socket connector
56 - Main rear ground (transmission)
57 - Trailer brake solenoid valve 1
57A - Trailer brake solenoid valve 2
58 - Trailer brake engaged sensor switch
59 - Shuttle mode position sensor
60 - Speed sensor
61 - Differential lock solenoid valve
62 - Dual drive sensor pressure switch
63 - HI clutch control solenoid valve
64 - Dual drive solenoid valve
65 - Shuttle mode solenoid valve
66 - Dump solenoid valve
67 - HI-LO control solenoid valve
68 - Transmission oil temperature sensor
69 - Neutral gear switch
70 - Handbrake sensor switch
81 - Front axle speed sensor
82 - Rear axle speed sensor
83 - C1 gear switch
93 - Right drawbar hydraulic adjustment button
95 - Differential lock sensor switch
96 - Arm position sensor
97 - Supplementary reduction switch (HI-LO mode position sensor)
98 - LO clutch control solenoid valve
99 - G1 gear switch
100 - Rear fuel tank level sensor

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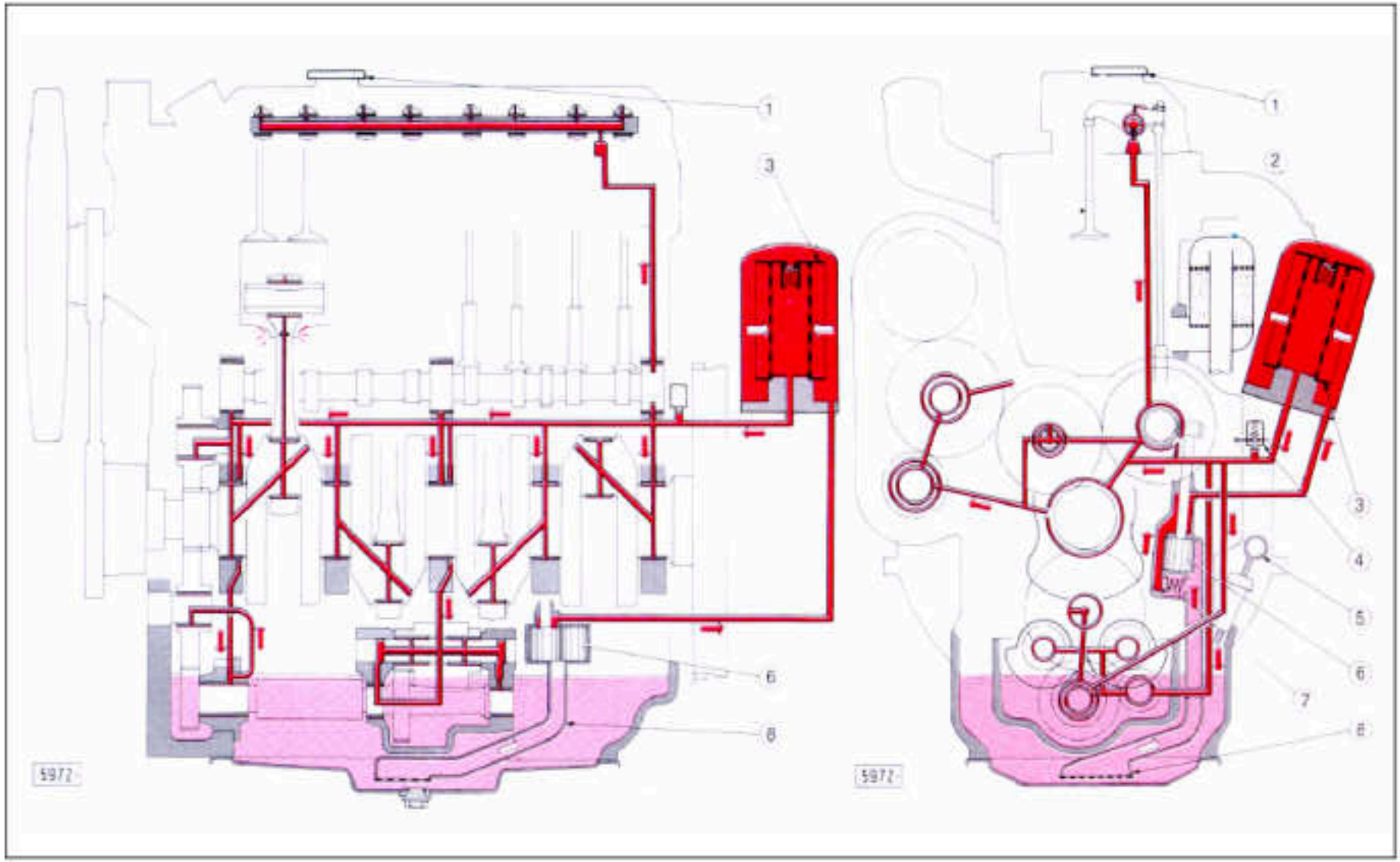
Longitudinal cross-sectional view of gearbox and gear range.

1. Seal.
2. Power take-off shaft support roller bearings.
3. Reverser control synchroniser.
4. Gearbox driving gear clearance adjusting thickness.
5. Power take-off shaft.
6. Gearbox driving gear.
7. Selector sleeve for high or medium-low speeds.
8. Bevel pinion shaft.
9. Selector sleeve for low or medium-high speeds.
10. Synchroniser for 1st and 2nd speed.
11. Synchroniser for 3rd and 4th speed.
12. Gearbox driven shaft gear clearance adjusting thickness.
13. Gearbox driven shaft.

Note - On assembly apply sealant to surfaces **X** following the indications given on page 34.

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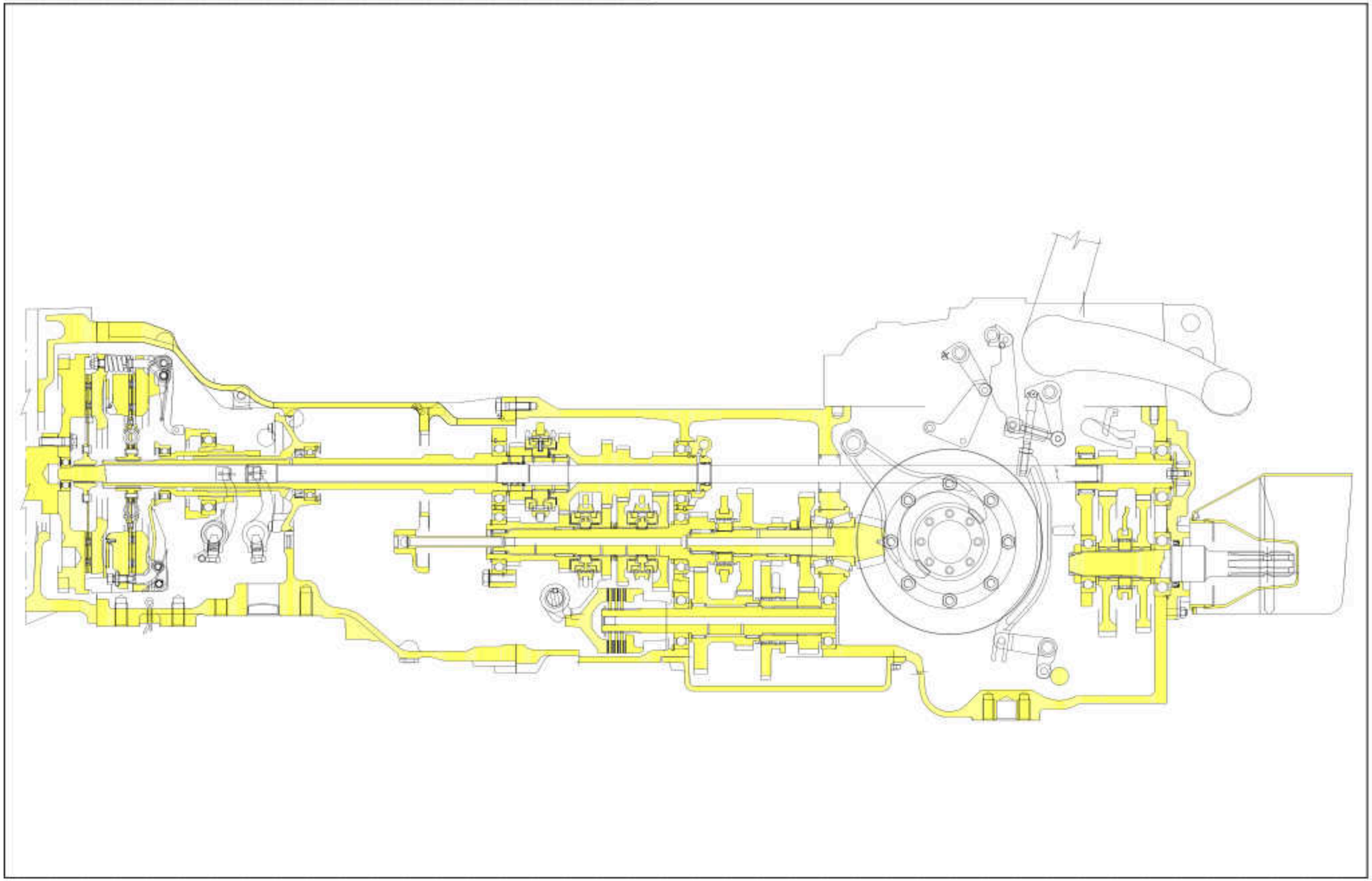
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Engine lubrication system 5

1. Oil filler cap - 2. Filter safety valve (opens when oil pressure at filter inlet exceeds the pressure at the outlet by 1.5-1.7 bar (21 - 24 psi)
3. Filter - 4. Switch for low engine oil pressure warning (on dashboard) -
5. Dipstick - 6. Pump - 7. Oil pressure limiting valve - 8. Screen filter on pick-up pipe.

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Longitudinal cross-sectional view of gearbox and range gear.

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